In the claims:

Please amend claims 1, 41-44, 49, and 59.

1.   **(Currently amended)** A recombinant fusion peptabody, which binds to an epidermal growth factor receptor selected from the group consisting of ErbB-1, ErbB-3, ~~and~~ or ErbB-4, comprising:

(a) a ~~portion of~~ a cartilage oligomer matrix polypeptide <u>portion</u> which is capable of oligomerizing;

(b) a peptide enhancer sequence having an amino acid sequence selected from the group consisting of YSFE <u>(SEQ ID NO: 5)</u>, YSFEDL <u>(SEQ ID NO: 6)</u>, ~~YSFEDLY,~~ ~~YSFEDLYR,~~ and YSFEDLYRR <u>(SEQ ID NO: 9)</u> and located at the N terminus of the peptabody;

(c) ~~a portion of~~ a hinge region of an immunoglobulin polypeptide located at the C terminus of the ~~portion of the~~ cartilage oligomer matrix polypeptide <u>portion</u>; and

(d) an epidermal growth factor receptor ligand which can bind to the epidermal growth factor receptor, located at the C terminus of the hinge region,

wherein said recombinant fusion peptabody is capable of inducing cellular death in a cell expressing said epidermal growth factor receptor.

2.   **(Canceled)**

3.   **(Canceled)**

4.   **(Previously presented)** The recombinant fusion peptabody of claim 1, wherein said recombinant fusion peptabody is multimeric.

5.   **(Canceled)**

6.   **(Previously presented)** The recombinant fusion peptabody of claim 1, wherein said epidermal growth factor receptor ligand is selected from the group consisting of:

(a) an epidermal growth factor polypeptide or receptor binding fragments thereof,

(b) a growth blocking peptide or receptor binding fragments thereof,

(c) a TGF alpha polypeptide or receptor binding fragments thereof,

(d) a plasmocyte spreading peptide or receptor binding fragments thereof,

(e) a paralytic peptide or receptor binding fragments thereof,

(f) a cardioactive peptide or receptor binding fragments thereof,

(g) an amphiregulin polypeptide or receptor binding fragments thereof,

(h) a heparin-binding epidermal growth factor-like polypeptide or receptor binding fragments thereof,

(i) a betacellulin polypeptide or receptor binding fragments thereof, and or

(j) a viral EGF-like polypeptide or receptor binding fragments thereof.

7.   **(Previously presented)** The recombinant fusion peptabody of claim 6, wherein said epidermal growth factor receptor ligand is present in its full-length sequence.

8.   **(Previously presented)** The recombinant fusion peptabody of claim 1, further comprising a polyhistidine tag sequence.

9.   **(Previously presented)** The recombinant fusion peptabody of claim 1, further comprising at least one effector region.

10.   **(Previously presented)** The recombinant fusion peptabody of claim 9, wherein the effector region comprises a cytotoxin or a detection moiety.

11.   **(Canceled)**

12.   **(Previously presented)** The recombinant fusion peptabody of claim 10, wherein said detection moiety is fluorescent.

13-16. **(Canceled)**

17.   **(Previously presented)** A pharmaceutical composition comprising the recombinant fusion peptabody of claim 1, and a pharmaceutically acceptable carrier.

18-27. **(Canceled)**

28.   **(Previously presented)** A kit for treating cancer characterized by expression of an epidermal growth factor receptors selected from the group consisting of ErbB1, ErbB3, and ErbB4, in a human patient, said kit comprising the recombinant fusion peptabody of claim 1 and/or instructions for administering the recombinant fusion peptabody to the human patient for the treatment of cancer.

29.   **(Previously presented)** The kit of claim 28, further comprising a separate pharmaceutical dosage form comprising an additional anti-cancer agent selected from the group consisting of a chemotherapeutic agents, an anti-epidermal growth factor receptors antibody, a radioimmunotherapeutic agents, and combinations thereof.

30.   **(Previously presented)** A kit for diagnosing cancer characterized by expression of an epidermal growth factor receptors selected from the group consisting of ErbB1, ErbB3, and ErbB4, in a human patient, said kit comprising the recombinant fusion peptabody of claim 10, and instructions for use.

31-40. **(Canceled)**

41.   **(Currently amended)** ~~An isolated peptide~~ A fusion protein comprising an enhancer sequence comprising an amino acid sequence selected from the group consisting of: YSFE (SEQ ID NO: 5), YSFEDL (SEQ ID NO: 6), ~~YSFEDLY, YSFEDLYR,~~ and YSFEDLYRR (SEQ ID NO: 9). ~~a molecular chimera thereof, and variants thereof.~~

42.   **(Currently amended)** ~~A recombinant~~ The fusion protein ~~comprising the enhancer peptide~~ of claim 41, wherein said fusion protein is a recombinant fusion peptabody.

43.   **(Currently amended)** A recombinant fusion peptabody, which binds to the epidermal growth factor receptor ErbB-1 comprising:

        (a) a human cartilage oligomer matrix polypeptide comprising amino acid residues 16 to 64 of SEQ ID NO: 2 ~~1~~;

(b) a peptide enhancer sequence for increasing protein production, located at the N terminus of the peptabody and having a sequence selected from the group consisting of YSFE (SEQ ID NO: 5), YSFEDL (SEQ ID NO: 6), ~~YSFEDLY, YSFEDLYR,~~ and YSFEDLYRR (SEQ ID NO: 9);

(c) ~~a portion of~~ a hinge region of an immunoglobulin polypeptide comprising amino acid residues 65 to 83 of SEQ ID NO: 2 ~~1~~, located at the C terminus of the ~~portion of the~~ cartilage oligomer matrix polypeptide; and

(d) an epidermal growth factor receptor ligand which binds to the epidermal growth factor receptor and is located at the C terminus of the hinge region,

wherein said recombinant fusion peptabody is capable of inducing cellular death in a cell expressing the epidermal growth factor receptor.

44.   **(Currently amended)** A monomer of a peptabody comprising

(a) ~~a portion of~~ a cartilage oligomer matrix polypeptide <u>portion</u> which is capable of oligomerizing;

(b) an enhancer peptide sequence having an amino acid sequence selected from the group consisting of YSFE <u>(SEQ ID NO: 5)</u>, YSFEDL <u>(SEQ ID NO: 6)</u>, ~~YSFEDLY, YSFEDLYR,~~ and YSFEDLYRR <u>(SEQ ID NO: 9)</u> and located at the N terminus of the peptabody;

(c) ~~a portion of~~ a hinge region of an immunoglobulin polypeptide located at the C terminus of the ~~portion of the~~ cartilage oligomer matrix polypeptide <u>portion</u>; and

(d) an epidermal growth factor receptor ligand located at the C terminus of the hinge region, wherein the epidermal growth factor receptor ligand binds to an epidermal growth factor receptor selected from the group consisting of ErbB-1, ErbB-3 or ErbB-4.

45.   **(Previously presented)** The monomer of claim 44, wherein said monomer forms a multimeric molecule.

46.   **(Previously presented)** The monomer of claim 45, wherein the multimeric molecule is pentameric or decameric.

47.   **(Canceled)**

48.   **(Canceled)**

49.   **(Currently amended)** An isolated and recombinant fusion peptabody, which binds to an epidermal growth factor receptor selected from the group consisting of ErbB-1, ErbB-3, and ErbB-4, comprising:

    (a) ~~a portion of~~ a humanized or human cartilage oligomer matrix polypeptide <u>portion</u> which is capable of oligomerizing;

    (b) a peptide enhancer sequence having an amino acid sequence selected from the group consisting of YSFE <u>(SEQ ID NO: 5)</u>, YSFEDL <u>(SEQ ID NO: 6)</u>, ~~YSFEDLY,~~ ~~YSFEDLYR,~~ and YSFEDLYRR <u>(SEQ ID NO: 9)</u> and located at the N terminus of the portion of the cartilage oligomer matrix polypeptide;

    (c) ~~a portion of~~ a hinge region comprising 19 amino acids of an immunoglobulin polypeptide, located at the C terminus of the ~~portion of the~~ cartilage oligomer matrix polypeptide <u>portion</u>; and

    (d) an epidermal growth factor receptor ligand which binds to the epidermal growth factor receptor and is located at the C terminus of the hinge region,

    wherein said isolated and recombinant fusion peptabody is capable of inducing cellular death in a cell expressing said epidermal growth factor receptor.

50.   **(Previously presented)** The recombinant fusion peptabody of claim 43, wherein said recombinant fusion peptabody is multimeric.

51.   **(Previously presented)** The recombinant fusion peptabody of claim 43, wherein said epidermal growth factor receptor ligand is selected from the group consisting of:

    (a) an epidermal growth factor polypeptide or receptor binding fragments thereof,

    (b) a growth blocking peptide or receptor binding fragments thereof,

    (c) a TGF alpha polypeptide or receptor binding fragments thereof,

    (d) a plasmocyte spreading peptide or receptor binding fragments thereof,

    (e) a paralytic peptide or receptor binding fragments thereof,

    (f) a cardioactive peptide or receptor binding fragments thereof,

    (g) an amphiregulin polypeptide or receptor binding fragments thereof,

(h) a heparin-binding epidermal growth factor-like polypeptide or receptor binding fragments thereof,

(i) a betacellulin polypeptide or receptor binding fragments thereof, and or

(j) a viral EGF-like polypeptide or receptor binding fragments thereof.

52.   **(Previously presented)** The recombinant fusion peptabody of claim 51, wherein said epidermal growth factor receptor ligand is present in its full-length sequence.

53.   **(Previously presented)** The recombinant fusion peptabody of claim 43, further comprising a polyhistidine tag sequence.

54.   **(Previously presented)** The recombinant fusion peptabody of claim 43, further comprising at least one effector region.

55.   **(Previously presented)** The recombinant fusion peptabody of claim 54, wherein the effector region comprises a cytotoxin or a detection moiety.

56.   **(Previously presented)** A kit for treating cancer characterized by expression of ErbB1 in a human patient, said kit comprising the recombinant fusion peptabody of claim 43 and/or instructions for administering the recombinant fusion peptabody to the human patient for the treatment of cancer.

57.   **(Previously presented)** The kit of claim 56, further comprising a separate pharmaceutical dosage form comprising an additional anti-cancer agent selected from the group consisting of a chemotherapeutic agents, an anti-epidermal growth factor receptors antibody, a radioimmunotherapeutic agents, and combinations thereof.

58.   **(Previously presented)** A kit for diagnosing cancer characterized by expression of ErbB1 in a human patient, said kit comprising the recombinant fusion peptabody of claim 55, and instructions for use.

59.   **(Currently amended)** A recombinant fusion peptabody, which binds to the epidermal growth factor receptor ErbB-3 or ErbB4 comprising:

(a) a human cartilage oligomer matrix polypeptide comprising amino acid residues 16 to 64 of SEQ ID NO: 2 ~~1~~;

(b) a peptide enhancer sequence for increasing protein production, located at the N terminus of the peptabody and having a sequence selected from the group consisting of YSFE (SEQ ID NO: 5), YSFEDL (SEQ ID NO: 6), ~~YSFEDLY, YSFEDLYR,~~ and YSFEDLYRR (SEQ ID NO: 9);

(c) ~~a portion of~~ a hinge region of an immunoglobulin polypeptide comprising amino acid residues 65 to 83 of SEQ ID NO: 2 ~~1~~, located at the C terminus of the ~~portion of the~~ cartilage oligomer matrix polypeptide; and

(d) an epidermal growth factor receptor ligand located at the C terminus of the hinge region,

wherein said recombinant fusion peptabody is capable of inducing cellular death in a cell expressing the epidermal growth factor receptor.

60.   **(Previously presented)** The recombinant fusion peptabody of claim 59, wherein said recombinant fusion peptabody is multimeric.

61.   **(Previously presented)** The recombinant fusion peptabody of claim 59, wherein said epidermal growth factor receptor ligand is selected from the group consisting of:

(a) an epidermal growth factor polypeptide or receptor binding fragments thereof,

(b) a growth blocking peptide or receptor binding fragments thereof,

(c) a TGF alpha polypeptide or receptor binding fragments thereof,

(d) a plasmocyte spreading peptide or receptor binding fragments thereof,

(e) a paralytic peptide or receptor binding fragments thereof,

(f) a cardioactive peptide or receptor binding fragments thereof,

(g) an amphiregulin polypeptide or receptor binding fragments thereof,

(h) a heparin-binding epidermal growth factor-like polypeptide or receptor binding fragments thereof,

(i) a betacellulin polypeptide or receptor binding fragments thereof, and or

(j) a viral EGF-like polypeptide or receptor binding fragments thereof.

62.	**(Previously presented)** The recombinant fusion peptabody of claim 61, wherein said epidermal growth factor receptor ligand is present in its full-length sequence.

63.	**(Previously presented)** The recombinant fusion peptabody of claim 59, further comprising a polyhistidine tag sequence.

64.	**(Previously presented)** The recombinant fusion peptabody of claim 59, further comprising at least one effector region.

65.	**(Previously presented)** The recombinant fusion peptabody of claim 64, wherein the effector region comprises a cytotoxin or a detection moiety.

66.	**(Previously presented)** A kit for treating cancer characterized by expression of ErbB1 in a human patient, said kit comprising the recombinant fusion peptabody of claim 59 and/or instructions for administering the recombinant fusion peptabody to the human patient for the treatment of cancer.

67.	**(Previously presented)** The kit of claim 66, further comprising a separate pharmaceutical dosage form comprising an additional anti-cancer agent selected from the group consisting of a chemotherapeutic agents, an anti-epidermal growth factor receptors antibody, a radioimmunotherapeutic agents, and combinations thereof.

68.	**(Previously presented)** A kit for diagnosing cancer characterized by expression of ErbB1 in a human patient, said kit comprising the recombinant fusion peptabody of claim 65, and instructions for use.